UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,287	08/05/2003	Timothy W. Crockett	RPS9-2002-0138US1	7985

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EXAMINER
NGUYEN, JIMMY H

ART UNIT	PAPER NUMBER
2629	

DATE MAILED: 03/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/634,287	CROCKETT ET AL.
	Examiner	Art Unit
	Jimmy H. Nguyen	2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 June 0104</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13 and 15-30* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-13 and 15-30* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>04 January 2006</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1.   This Office Action is made in response to applicant's amendment filed on 01/04/2006.

Claims 1-13 and 15-30 are currently pending in the application. An action follows below:

Important Notice to Applicants

2.   It is noted that the present invention directs to an apparatus and methods for blocking

selected key codes, sequences of key codes, and combinations of key codes transmitted between

a keyboard and a host computer. See The Field of the Invention section and Abstract. The

present invention does not direct to an apparatus and methods for blocking instructions or

commands transmitted between a touch screen or a voice recognition system and a host computer

because there is nowhere in the original to disclose the key code filter 102 capable of

functionally blocking or unblocking the instructions or commands received from a touch screen

or a voice recognition system.

Allowable Subject Matter

3.   The indicated allowability of claims 6, 14, 15, 24, and 24 are withdrawn in view of the

new rejections follow.

Drawings

4.   The drawing was received on 01/04/2006. This drawing is disapproved because it

introduces new matter into the disclosure. The original disclosure does not disclose the key code

Filter 102 simultaneously connected to a keyboard 100, a touch screen 120, a voice recognition

system 122, and a host computer 104, as shown in the submitted drawing.

5.   The drawings are objected to because "Filtering Module 110" as shown in Fig. 1B and

"Filter Module 300" as shown in Fig. 3 are clearly distinct from each other, but are named

similarly. Further, as noting in Figs. 1B, 2 and 3, the Filtering Module 10 is a hardware and

comprises elements (210, 216, 222, 224 and 226) (see Fig. 2) including a memory 216 which

includes a Filter Module 300 (see Fig. 3). Also, a Filter Module 300 of the memory is not a

hardware and a merely virtual portion of the memory and a module is usually referred as a

packaged functional assembly of electronics components for use with other such assemblies (see

Merriam Webster's Collegiate Dictionary, tenth edition). Therefore, it is suggested a Filter

Module 300 should be named differently from the Filtering Module 100, e.g., Filtering Code,

Filtering Subroutine, or etc..

6.   The drawings are objected to under 37 CFR 1.83(a). The drawings must show every

feature of the invention specified in the claims. Therefore, the features, "a touch screen" of

claim 28 and "a voice recognition system" of claim 30, must be shown or the feature(s) canceled

from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to

the Office action to avoid abandonment of the application. Any amended replacement drawing

sheet should include all of the figures appearing on the immediate prior version of the sheet,

even if only one figure is being amended. The figure or figure number of an amended drawing

should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure

must be removed from the replacement sheet, and where necessary, the remaining figures must

be renumbered and appropriate changes made to the brief description of the several views of the

drawings for consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The

objection to the drawings will not be held in abeyance.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to

the Office action to avoid abandonment of the application. Any amended replacement drawing

sheet should include all of the figures appearing on the immediate prior version of the sheet,

even if only one figure is being amended. The figure or figure number of an amended drawing

should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure

must be removed from the replacement sheet, and where necessary, the remaining figures must

be renumbered and appropriate changes made to the brief description of the several views of the

drawings for consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The

objection to the drawings will not be held in abeyance.

Specification

7.   The amendment filed 01/04/2006 is objected to under 35 U.S.C. 132(a) because it

introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall

introduce new matter into the disclosure of the invention. The added material which is not

supported by the original disclosure is as follows: **a key code filter 102 is inserted between a**

touch screen 120, and/or a voice recognition system 122 and a host computer. Note that the

original disclosure only teaches a key code filter 102 inserted between a keyboard and a host

computer. Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Objections

8.   Claim 1 is objected to because of the following informalities: "comprising" in line 5

should be changed to either -- comprising a memory for storing -- or -- storing -- because a rule

table is just data which must be stored in a physical element such as a memory. Appropriate

correction is required.

9.   Claim 3 is objected to because of the following informalities: -- said -- should be inserted

immediately before "combinations" in line 3 because of sufficient antecedent basis for the

limitation in the claim (see claim 1, line 8). Appropriate correction is required.

10.   Claim 6 is objected to because of the same reason set forth in claim 1 above. Appropriate

correction is required.

11.   Claim 15 is objected to because of the following informalities: "14" in line 1 should be

changed to either -- 13 -- because claim 14 was cancelled. Appropriate correction is required.

12.   Claim 19 is objected to because of the following informalities: "comprising" in line 4

should be changed to either -- comprising a memory for storing -- or -- storing -- because a rule

table is just data which must be stored in a physical element such as a memory. Appropriate

correction is required.

13.   Claim 25 is objected to because of the following informalities: "comprising:" in line 5

should be changed to either -- comprising a memory for storing -- or -- storing -- because a rule

table is just data which must be stored in a physical element such as a memory. Appropriate

correction is required.

14.   Claim 26 is objected to because of the following informalities: "comprising" in line 7

should be changed to either -- comprising a memory for storing -- or -- storing -- because a rule

table is just data which must be stored in a physical element such as a memory. Further,

"processing systems" in line 6 should be changed to -- said processing system --, because of

sufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

15.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

16.   Claims 1-18 and 21-30 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

17.   Claims 1-11 recite the limitation "the unblocked key codes" in last line of independent

claim 1. There is insufficient antecedent basis for this limitation in the claim. Additionally, it is

not clear the claimed limitation, "a filtering module" recited in line 5 of independent claim 1,

corresponding to a Filter Module 100 as shown in Fig. 1B or a Filter Module 300 as shown in

Fig. 3.

Additionally to claim 5, it is not clear what the applicant refers "the key codes" in line 1

of claim 5, to "a stream of key codes" in line 3 of claim 1, "selected key codes" in line 8 of claim

1, or "combinations of key codes" in line 8 of claim 1.

Additionally to claim 9, it is not clear what the applicant means "the functionality of the

filtering module is **exclusively provided** by electrical hardware" in lines 1-2 of claim 9, i.e., the

functionality of the filtering module is not provided or is provided by electrical hardware.

Additionally to claim 10, it is not clear what the applicant means "computer software" in

line 2 of claim 10, i.e., a software is executed by the host computer. However, it is noted to

Applicant that the filtering module is separate from the host computer, so it is not clear how the

software of the filtering module can be executed by the host computer.

18.   Claims 12-18 recite the limitation "**the** unblocked key codes" in line 9 of independent

claim 12. There is insufficient antecedent basis for this limitation in the claim. Further, it is not

clear what the applicant means "**maintaining a rules table**" in line 5 of claim 12, i.e., keeping a

rules table unchanged. It is noted that the disclosure does not expressly disclose a step of

maintaining a rules table in the present invention, so as to clarify what the Applicant is claiming.

Further, in contrast to this feature, claim 18 recites an alteration of the key codes, i.e., an

alteration of a rules table.

Additionally to claim 13, it is not clear what the applicant refers "the key codes" in line 1

of claim 13, to "a stream of key codes" in line 3 of claim 12, "the intercepted key codes" in line

7-8 of claim 12, or "the unblocked key codes" in line 9 of claim 12.

Additionally to claim 15, similarly discussed, it is not clear what the applicant means

"**maintaining a make list**" in line 2 of claim 15 and ""**maintaining a block list**" in line 5 of

claim 15.

Additionally to claim 16, it is not clear what the applicant means "**blocking exclusively**

with hardware" in lines 1-2 of claim 16, i.e., blocking is not executed or executed by hardware.

Additionally to claim 18, this claim recites the limitation "**the selected key codes,**

sequences of key codes, and combinations of key codes" in lines 1-3. There is insufficient

antecedent basis for this limitation in the claim. Further, it is not clear what the applicant means

"**reprogramming a memory device to alter a set of at least one of the selected key codes,**

sequences of key codes, and combinations of key codes" in lines 1-3 of claim 18, because this

claim does not recite a memory device storing a set of at least one of the selected key codes,

sequences of key codes, and combinations of key codes, i.e., a memory device does not relate to

a set of at least one of the selected key codes, sequences of key codes, and combinations of key

codes, so it is not clear how reprogramming a memory device alters a set of at least one of the

selected key codes, sequences of key codes, and combinations of key code.

19.   As per claim 21, it is not clear what the applicant means "**a key code filter configured to**

maintaining a rules table" in lines 3-4 of claim 21, i.e., a key code filter keeps a rules table

unchanged. It is noted that the disclosure does not expressly disclose a key code filter keeping a

rules table unchanged in the present invention, so as to clarify what the Applicant is claiming.

20.   As per claims 22-24, it is not clear what the applicant means "receiving and transmitting

key codes to and from a keyboard and host computer " in line 4 of claim 22, i.e., a keyboard

receiving and transmitting key codes and host computer receiving and transmitting key codes.

Further, it is not clear what the applicant means "**maintaining a rules table**" in line 6 of claim 22,

i.e., keeping a rules table unchanged. It is noted that the disclosure does not expressly disclose a

step of maintaining a rules table in the present invention, so as to clarify what the Applicant is

claiming.

Additionally to claim 23, it is not clear what the applicant refers "the key codes" in line 1

of claim 23, to "selected key codes", "sequences of key codes", or "combinations of key codes",

in line 9 of claim 22.

Additionally to claim 24, similarly discussed, it is not clear what the applicant means

"**maintaining a make list**" in line 5 of claim 24 and ""**maintaining a block list**" in line 8 of

claim 24. Further, claim 24 recites the limitation "**the** filter module" in lines 1-2 of this claim,

which lacks antecedent basis for this limitation in the claim. Further, it is not clear the claimed

limitation, "the filtering module" in lines 1-2, corresponding to a Filter Module 100 as shown in

Fig. 1B or a Filter Module 300 as shown in Fig. 3. Further, it is not clear that applicant is

claiming a computer readable medium, a method, or a filter module.

21.   As per claim 25, it is not clear the claimed limitation, "a filtering module" in line 3 and

lines 4-5, corresponding to a Filter Module 100 as shown in Fig. 1B or a Filter Module 300 as

shown in Fig. 3.

22.   As per claims 26-30, it is not clear the claimed limitation, "a filtering system" in line 6 of

claim 26, corresponding to a Filter Module 100 as shown in Fig. 1B or a Filter Module 300 as

shown in Fig. 3.

23.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and
> using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or

with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

24.   Claims 1-13 and 15-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the enablement requirement. The claim(s) contains subject matter which was not

described in the specification in such a way as to enable one skilled in the art to which it pertains,

or with which it is most nearly connected, to make and/or use the invention.

As per claims above, these claims contain the feature, " each rule determining whether a

key code is to be blocked or transmitted" as presently recited in all independent claims. A rule is

a mere data or mere codes, so how the rule, i.e., mere data or mere codes, itself can determine

whether a key code is to be blocked or transmitted. Further, one skilled in the art would

recognize that data or codes would not enable the functionality of the program to be realized

without hardware, e.g., a processor executing the program. Accordingly, the disclosure, when

filed, does not expressly teach the above underlined feature in such a way as to enable one

skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or

use the invention.

Additionally to claims 22-24, these claims are directed to a computer-readable medium

comprising computer code, i.e., computer software, which is configured to carry out a method,

however, these claims do not recite any further hardware used to execute the code, e.g., a

processor of the key lock filter (see Fig. 2), so how the computer code is configured to carry out

a method recited in these claims.

Additionally to claims 26-30, these claims recite feature, "the filtering system designed to

receive all instructions from the input device, filtering certain instructions in accordance with the

rules table, and forward all non-filtered instructions to the processing" in last 4 lines of claim 26,

which were not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The disclosure, when filed, expressly discloses a filtering system for filtering out selected **key codes** transmitted between a keyboard and a host computer. See Figs. 1-8 and the corresponding description. However, the disclosure, when filed, does not expressly teach a terminal or a system comprising a filtering system for receiving and filtering out **instructions** from an input device such as a touch screen of claim 28 or a voice recognition system of claim 30, in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Further see the important Notice to Applicants section above.

25.   It is noted Applicants that due to the rejections under 35 USC 112, first and second paragraphs above, the following art rejections are based as best understood by the Examiner.

Claim Rejections - 35 USC § 102

26.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

27.   Claims 1-7, 9-13, 15-27 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Misuhiro (JP 04-151711). See the attached English translation of this document for the following rejection.

As per claims above, the claimed invention reads on Misuhiro as follows: Misuhiro discloses a system and associate method, the system (see Fig. 1) comprising a keyboard (a keyboard comprising elements 1, 21 and 22, see pages 3-4 of the English translation); a key code

filter (a combination of elements 2-5 all shown in Fig. 1, see pages 3-4); and a host computer (a computer body 6, see Fig. 1 and page 4). As noting in Fig. 1, Misuhiro discloses a keycode filter (2-5) comprising an input port for receiving a stream of key codes (key-depression data from the scanner means 1, see fig. 1), a filtering module (a module including elements 2-4, see fig. 1) operably connected with the input port and configured to block selected key codes and combinations of key codes (see page 4, lines 14-20, of the English translation); and an output port (an interface means 5, see Fig. 1, page 4, lines 21-22, of the English translation) connected to the filter (2-4), for receiving the key code data and transmitting the received key code data to the host computer (6). Mitsuhiro further teaches the filter module (2-4) comprising a processor or microcontroller (lock controlling means 4, Fig. 1, page 4, lines 14-20, of the English translation) and a memory including a code converting table (3) which includes a rule table to be used for determining whether a key code is to be blocked or transmitted (see the description from page 4, line 14 through page 5, line 7, disclosing that if the key code including a code to indicate the lock switch on, the key code is blocked and if the key code including a code to indicate the lock switch off, the key code is transmitted to the computer). Furthermore, the key codes (key-depression data) inherently correspond to keys that are pressed and release key codes inherently corresponds to keys that are released, and wherein each key on the keyboard is characterized by a unique make key code and a unique release key code, in order to recognize the key input from a user. Accordingly, the elements and steps in these claims are read in the Mitsuhiro reference.

Claim Rejections - 35 USC § 103

28.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

29.   Claims 8, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Misuhiro.

As per claim 8, as discussed in the rejection above, Mitsuhiro discloses all the limitations

of claim 8 except that Mitsuhiro does not expressly teach the microcontroller configured to

operate using power received from the host computer. However, Official Notice is taken that

both the concept and the advantages of providing a power of the host computer to a peripheral

device (i.e., a peripheral device connected and using the power of the host computer), such as a

keyboard, a mouse, or input devices, are well-known and expected in the art. It would have been

obvious to have the filter (i.e., including the micro controller of the filter) using the power of the

host computer of Mitsuhiro because this would reduce the cost of an extra power source and

reduce the power consumption since the filter only needs to activate when the host computer is

used.

As per claims 28 and 30, as discussed in the rejection above, Mitsuhiro discloses all the

limitations of claims 28 and 30 except that Mitsuhiro does not expressly teach the input device

comprising a touch screen or a voice recognition system. However, Official Notice is taken that

both the concept and the advantages of providing a touch screen or a voice recognition system in

a keyboard are well-known and expected in the art. It would have been obvious to provide a

touch screen or a voice recognition system in the keyboard of Mitsuhiro because this would

allow a user another means to conveniently provide inputs, such as a selection of items or a

movement of an item by a touch screen or a command input by a voice recognition system.

Response to Arguments

30.   Applicant's arguments, see pages 14-15 of the amendment, filed 01/04/2006, with respect to the rejections under 35 USC 102(b) and 103(a) have been fully considered and are persuasive. These rejections of the Office Action dated 10/18/2005 have been withdrawn.

31.   Applicant's arguments with respect to the drawing objection and the rejection under 35 USC 112, first paragraph, to claims 28 and 30, see page 13 of the amendment filed 01/04/2006 have been fully considered but they are not persuasive. In response to the applicant's argument with respect to the drawing objection, see the drawing objection section above. In response to the applicant's argument with respect to rejection under 35 USC 112, first paragraph, see the "Important Notice to Applicant" section and the detailed rejection above.

Conclusion

32.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is 571-272-7675. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JHN   Jimmy H. Nguyen
March 27, 2006   Primary Examiner
                                                               Technology Division: 2629

Replacement Sheet

Title: KEY CODE FILTER APPARATUS AND METHOD
Inventors: Crockett et al.
Docket No.: 1300.2.16 / RPS9-2002-0138 (JBS)
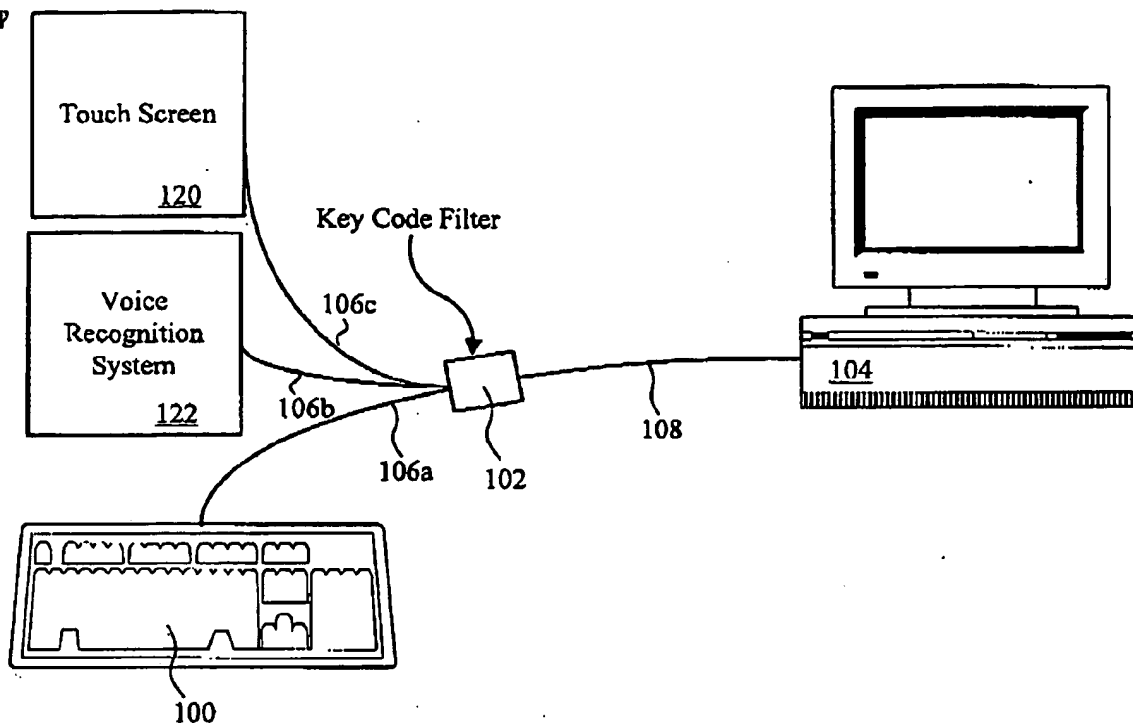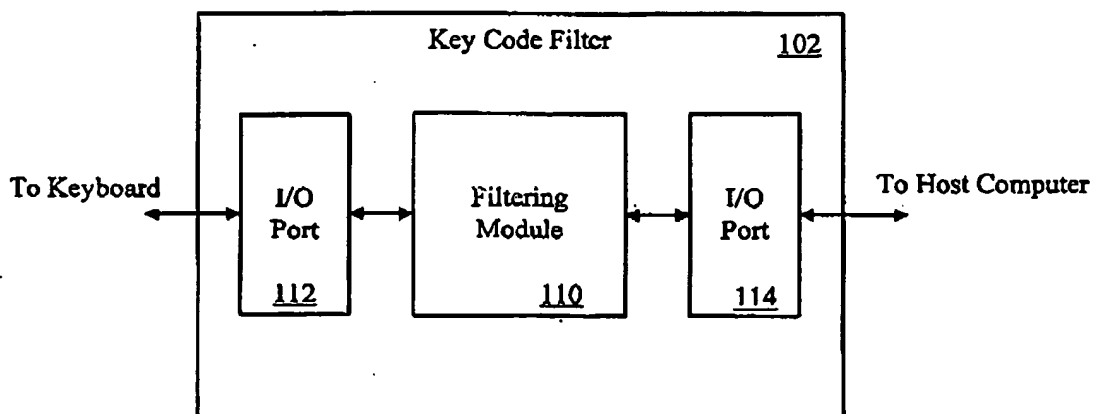Page 1 of 8

NOT APPROVED
J.A.N
3/16/06

Touch Screen

120

Voice Recognition System

122

Key Code Filter

106c

106b

106a   102

108

104

100

Fig. 1A

Key Code Filter   102

To Keyboard

I/O Port

112

Filtering Module

110

I/O Port

114

To Host Computer

Fig. 1B